

L 62557-65

ACCESSION NR: AT5016479

equilibrium, the overall flow of heat energy at the wall disappears. Equations are derived for determining the overall heat flow. Orig. art. has: 3 figures, 2 tables, 21 formulas.

ASSOCIATION: Institut inzhenerov zheleznodorozhnogo transporta, Moscow (Institute of Railroad Transportation Engineers)

SUBMITTED: 00

ENCL: 00

SUB CODE: TD, ME

NO REF SOV: 000

OTHER: 000

awm
Card 3/3

L 62556-65 EWT(1)/EPF(c)/EPF(n)-2/ENG(m)/ Pr-4/PS-4/Pu-4 WW
 ACCESSION NR: AT5016480 UR/2649/65/000/189/0041/0052 43

AUTHOR: Konakov, P. K.; Kumskov, V. T.; Sidorov, Yu. P.; Sidorov, V. S. 42
 B+/

TITLE: Complex heat exchange and hydraulic drag in a moving gray fluid with high optical density 21

SOURCE: Moscow. Institut inzhenerov zheleznodorozhnogo transporta. Trudy, no. 189, 1965. Issledovaniye teploobmena v teploenergeticheskikh ustanovkakh i v ustanovkakh dlya polucheniya poluprovodnikovyykh materialov (Investigation of heat exchange in thermal power units and in equipment for producing semiconductor materials), 41-52

TOPIC TAGS: thermodynamic analysis, heat exchange, grey body, optical density, boundary layer, laminar flow

ABSTRACT: This article examines the problem of complex heat exchange and hydraulic drag in a moving gray fluid with high optical density. Let a stream of incompressible gray fluid with high optical density strike a plate with velocity w_0 (see fig. 1 of the Enclosure). Near the surface of the plate a laminar boundary layer is formed of thickness $\delta = \phi(x)$. During nonisothermal motion of a medium with temperature T_0 a temperature boundary layer $\delta_T = \psi(x)$ is also formed near the wall. Physi-

Card 1/3

L 62556-65

ACCESSION NR: AT5016480

cal characteristics of the medium: density ρ coefficient of heat conductivity λ , coefficient of absorption K coefficient of kinematic viscosity ν are assumed constant. Transfer of heat energy in the gray fluid is determined by convective and radiant components. Because of this, the energy equation must be completed by a term which takes account of radiant heat exchange. These considerations are used in setting up laminar boundary layer equations. On the basis of these equations calculated relationships are derived for hydraulic resistance and heat exchange during movement of gray fluids. Variation in the optical density of the fluid to a significant degree determines the value of the radiation components of the complex heat exchange. Analysis of the solutions shows that hydrodynamics is a determining factor for intensification not only of convective but also of complex heat exchange. For gray fluids with very high optical density the share of radiant transfer of energy is diminished. Orig. art. has: 1 figure, 35 formulas.

ASSOCIATION: Institut inzhenerov zheleznodorozhnogo transporta, Moscow (Institute of Railroad Transportation Engineers)

SUBMITTED: 00

ENCL: 01

SUB CODE: TD, ME

NO REF SOV: 001

OTHER: 000

Card 2/3

E 62556-65
ACCESSION NR: AT5016480

ENCLOSURE: 01

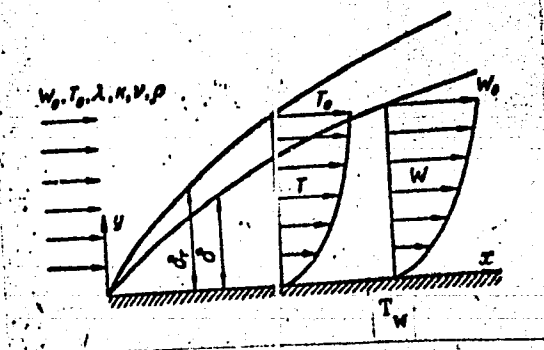


Fig. 1. Diagram of the hydraulic and temperature layers.

all in
Card 3/3

L 62553-65 EWT(1)/EPF(c)/EPF(n)-2/EWG(m) Pr-4/Ps-4/Pu-4 WW
ACCESSION NR: AT5016483

UR/2649/65/000/189/0083/0090 38
37
B+1

AUTHOR: Sidorov, V. S.

TITLE: Convective heat exchange²⁾ in the case of eddy of a viscous fluid at the initial section of a tube

SOURCE: Moscow. Institut inzhenerov zheleznodorozhnogo transporta. Trudy, no. 189, 1965. Issledovaniye teploobmena v teploenergeticheskikh ustanovkakh i v ustanovkakh dlya polucheniya poluprovodnikovyykh materialov (Investigation of heat exchange in thermal power units and in equipment for producing semiconductor materials), 83-90

TOPIC TAGS: heat exchange, turbulent flow, thermodynamic analysis

ABSTRACT: This article examines convective heat exchange at the entrance region of a cylindrical tube and on the basis of integral equations presents a solution which agrees closely with existing experimental data. Calculations and graphs are presented. Some deviation from the experimental data results from the fact that, in this paper, allowance is made for the turbulent layer formed at the very beginning of the tube. In actuality, during an eddy flow near the entrance region, a laminar boundary layer is formed which becomes turbulent only after a certain distance.

Card 1/2

L 62553-65

ACCESSION NR: AT5016483

Orig. art. has: 3 figures, 17 formulas.

ASSOCIATION: Institut inzhenerov zheleznodorozhnogo transporta, Moscow (Institute of Railroad Transportation Engineers)

SUBMITTED: 00

ENCL: 00

SUB CODE: TD, ME

NO REF SOV: 007

OTHER: 003

alum
Card 2/2

SIDOROV, V.S.

Pulmonary adenomatosis diagnosed intra vitam. Klin.med. 38
no.11:108-111 N '60. (MIRA 13:12)

1. Iz medsanchnsti Kombinata imeni III Internatsionala (glav.
vrach - zasluzhennyy vrach RSFSR A.I. Polyakova) g. Karabanovo
Vladimirovskoy oblasti.
(LUNGS—TUMORS)

BOKUCHAVA, M.A.; POPOV, V.R.; SIDOROV, V.S.

Chromatographic separation of free aminoacids in fresh and wilted tea leaves. Dokl.AN SSSR 95 no.3:609-610 Mr '54. (MLRA 7:3)

1. Institut biokhimii im. A.N.Bakha Akademii nauk SSSR.
Predstavleno akademikom A.I.Oparinym.
(Amino acids) (Tea) (Chromatographic analysis)

SMIRNOV, B.P., SIDOROV, V.S.

Paper chromatography of resin acids from pine and spruce. Zhur.
prikl.khim. 33 no.5:1192-1203 My '60. (MIRA 13:7)

1. Laboratoriya biokhimi lipidov Instituta biologii Karel'skogo
filiala AN SSSR, Petrozavodsk.
(Resin acid) (Paper chromatography)

SIDOROV, V.S., inzhener.

Using distributing valves in the S-284 concrete pump pipelines.
Gidr.stroi.25 no.6:52 J1 '56. (NLSA 9:9)
(Dumping machinery) (Valves)

SIDOROV, V.S., inzhener (Kaluga)

More attention to roadbeds. Put' i put. khoz. no.3:13-14 Mr '57.
(Railroads--Track) (NLRA 10:5)

SIDOROVA, V.S., inzh.

Trench opening in steeply pitching ore and asbestos deposits
with use of railroad haulage. Izv.vys.ucheb.zav.; gor.shur. no.9:
22-27 '58. (MIRA 12:6)

1. Sverdlovskiy gornyy institut.
(Strip mining) (Mine railroads)

KUMSKOV, V.T., kand.tekhn.nauk, dotsent; SIDOROV, V.S., inzh.

Heat exchange calculations for boiler burners. Trudy MIIT no.125:132-
136 '60. (MIRA 13:10)

(Boilers) (Heat—Transmission)

44405

S/019/62/000/022/026/085
A156/A128

94330

AUTHOR: Sidorov, V. S.

TITLE: Method of measuring the parameters of volt-ampere characteristics of tunnel diode

PERIODICAL: Byulleten' izobreteniy, no. 22, 1962, 33

TEXT: Class G 01r: 21e, 36₀₁. No. 151724 (762727/26-10 of February 2, 1962). This method of measuring the parameters of volt-ampere characteristics of a tunnel diode differs from other such methods in that it provides for increased measurement accuracy. To this end, the maximum and minimum voltages are determined as the boundaries of the selfexcitation area of the tunnel diode. ✓

[Abstracter's note: Complete translation]

Card 1/1

SIDOROV, V.S.

Change in the composition of amino acids in the course of their
abiogenetic synthesis as related to the duration of the ultra-
violet action on the solutions of formaldehyde and ammonia salts.
Dokl. AN SSSR 164 no.3:692-695 S '65. (MIRA 18:9)

1. Institut biokhimii im. A.N. Bakha AN SSSR. Submitted
December 2, 1964.

L 04162-67 EWT(1) CW

ACC NR: AT6023233

(N)

SOURCE CODE: UR/2732/88/044/000/0216/0216

AUTHOR: Sidorov, V. S.

ORG: none

TITLE: Organization of the new Soviet station Molodezhnaya 18

SOURCE: Sovetskaya antarkticheskaya ekspeditsiya, 1955- . Sed'moy reys d/e "Ob'", 1961-1962 gg.; nauchnyye rezul'taty i materialy nablyudeniy (Seventh voyage of the diesel-powered "Ob'", 1961-1966; scientific results and observation data); trudy ekspeditsii, v. 44. Leningrad, Gidrometeoizdat, 1965, 216-219

TOPIC TAGS: geophysic research facility, meteorologic research facility, Antarctic climate, oceanographic ship

ABSTRACT: This article describes the staffing and equipping of the new Soviet station Molodezhnaya in Enderby Land. The program of scientific works for the new station included meteorological and actinometric observations, radiosonde observations of the atmosphere, hydrological observations, and observations of terrestrial magnetism, including a continuous recording of the variations of the geomagnetic field and absolute determinations. The personnel, equipment, and everything necessary for the initial organization of the station were landed

Card 1/2

L 04162-67

ACC NR: AT6023233

by two aircraft and on February 23, 1962, this operation, which took two days, was completed. In all there were 15 aircraft runs and more than ten tons of cargo unloaded. On the next day the radio station was set up for direct communication with Mirnyy and Novolazarevskaya and the meteorological station equipped. By 10 March the construction of the scientific buildings for aerological and magnetic observations was completed. After a long and difficult passage through the ice the ship Ob' finally moored on March 18 at a natural wharf (ice barrier). On March 31, 1962 the team went aboard the Ob' to return home, leaving 12 men to spend the winter at the new station. Orig. art. has: 1 figure.

SUB CODE: 04, 08/ SUBM DATE: 13Dec65

Card 2/2

SIDOROV, V. V.

B-2

USSR/General Biology - Cytology.

Abs Jour : Ref Zhur - Biol., No 5, 1958, 18993

Author : Sidorov, V. V.

Inst : -

Title : Mitotic Division of Nerve Cells in Spinal Column Ganglia of Cats of Different Ages.

Orig Pub : Ob. nauchno-issled. rabot stud. Stavropolsk. s.-kh. in-ta, 1956, No 4, 106-108

Abstract : In spinal ganglia of newborn kittens and kittens 2, 3, 7, 10, 17 days, 1, 2, 6-8 months, and 1 year old, multiplication of nerve cells by mitosis is observed. Most frequently the division is by ordinary mitosis, at times also by endomitosis. Cell multiplication occurs most intensely in the first stages of postembryonic development; in 2-day old kittens the number of cells is increased by 150% by comparison with the newly born; by the 7-10th day after birth the number of nerve cells is 2½ times larger

Card 1/2

TAYCHINOV, S.N. Prinimal uchastiye KHAMIDULLIN, M.M.; GIRFANOV,
V.K., kand. sel'khoz. nauk, otv. red.; SIDOROV, V.V., red.

[Granular subsoil; methods of developing a deep arable layer
in the Chernozem soils of the southern cis-Ural region] Pod-
pakhotnaia krukka; puti sozdaniia moshchnogo pakhotnogo sloia
na chernozenakh Iuzhnogo Predural'ia. Ufa, Bashkirskii fi-
lial AN SSSR, 1963. 273 p. (MIRA 17:4)

9.9900

82931

S/169/60/000/006/015/021

A005/A001

Translation from: Referativnyy zhurnal, Geofizika, 1950, No. 6, p. 182, # 6769

AUTHOR: Sidorov, V. V.

TITLE: On the Motion of the Reflection Point Along the Meteor Trail

PERIODICAL: Astron. Tsirkulyar, 1958, 28 noyabrya, No. 197, pp. 11-13

TEXT: The interpretation of the observed time-dependent variability of the Doppler frequency of a signal reflected from a meteor trail is reviewed critically; the interpretation was proposed by Rao (RZhFiz 1959, No. 6, # 13,764). The author shows that this fact may be explained by the existence of large-scale turbulences over about 6-10 km without consideration of turbulences of smaller scale.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

SIDENOV, V. V.

PHASE I BOOK EXPLOITATION

SOV/4728

Kazan'. Universitet. Astronomicheskaya observatoriya

Byulleten', no. 35 (Bulletin of the Astronomical Observatory, Kazan'
State University imeni V. I. Ul'yanov-Lenin, No. 35) [Kazan'] 1960. 80 p.
No. of copies printed: not given.

Sponsoring Agencies: Ministerstvo vysshego i srednego spetsial'nogo
obrazovaniya RSFSR; Kazanskiy ordena trudovogo krasnogo znameni
gosudarstvennyy universitet imeni V. I. Ul'yanova-Lenina.

No contributors mentioned.

PURPOSE: This booklet is intended for astronomers, radio and electronics
engineers, and physicists. It may be used by advanced students of astronomy.

COVERAGE: This issue of the Bulletin of the Astronomical Observatory imeni
Engel'gardt contains 6 articles reflecting work carried on at that institute
during the last decade. Individual papers deal with radar observations

Card 1/4

Bulletin of the Astronomical (Cont.)

SOV/4728

of meteor activity and the equipment used in such studies including a new ZTL-180 zenith telescope. Photoelectric observations of AR Cassiopeia, RR Lynx, and SX Auriga are covered in the papers. References accompany individual articles.

TABLE OF CONTENTS:

Kostylev, K. V., Yu. A. Pupyshchev, and V. V. Sidorov. Equipment Used at the Astronomical Observatory imeni Engel'gardt for Radar Observations of Meteors 1

The authors describe the registration unit used in conjunction with the Observatory's three KGY-M1 radar installations to record on film both basic data on meteor activity and the distribution of radio echoes according to three amplitude levels. A schematic diagram of the photo attachment shows the unit to consist of three parts: 1) signal group (basic unit which detects signal, chooses first-level amplitude, selects width, and forms pulse of selected signal which then proceeds to the electron-ray tube modulator of the recording oscillograph; 2) scan group (scan and trigger on a twin triode fixes meteor reflection on the film in the form of a double point); and 3) the service group (records time, distance, and other data). A block diagram is given of an additional unit used to obtain information on the static distribution of the amplitudes of the radar

Card 2/4

9.9300

S/169/62/000/006/069/093
D228/D304

AUTHOR: Sidorov, V. V. _____

TITLE: Influence of ionospheric winds on some characteristics
of radio-reflections from meteor tracks

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 5, ab-
stract 6631 (Tr. Gorodsk. astron. observ. Kazansk.
un-ta, no. 33, 1961, 75-86)

TEXT: The influence of ionospheric wind on a meteor track in the
initial period of its existence is analyzed theoretically. It is
shown that wind with an altitude velocity gradient of $\sim 5 - 10$ m/sec
per 1 km must lead to the movement of the reflection point along
the track. The speeds of movement may reach several kilometers per
second for long distance echoes. /-Abstracter's note: Complete
translation./

Card 1/1

2.244
1110

S/035/62/000/010/020/128
A001/A101

AUTHORS: Bel'kovich, O. I., Sidorov, V. V.

TITLE: Registration of amplitude-temporal characteristics of meteor radio echoes

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 10, 1962, 42, abstract 10A309 ("Tr. Gorodsk. as ron. observ. Kazansk. un-ta", 1961, no. 33, 87 - 91, English summary)

TEXT: The authors describe changes in the receiver-indicator part of the radar equipment of the Astronomical Observatory imeni Engel'gardt, which make it possible to register amplitude-temporal characteristics of meteor radio echoes and summary duration of meteor echoes during 5-minute periods for two recording levels. Previously this equipment was used for recording distance, appearance time and duration of meteor echoes, as well as for determining azimuthal distribution of meteor quantity and echo distribution over three amplitude levels of recording. V/L

V. Lebedinets

[Abstracter's note: Complete translation]
Card 1/1.

39242
S/141/62/005/002/002/025
EO32/E514

3,1700

9.9600

AUTHORS:

Sidorov, V.V. and Fakhrutdinov, R.Yu.

TITLE:

On the electron distribution along the radius of a meteor trail

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v.5, no.2, 1962, 216-220

TEXT:

No direct measurements of the radial electron density distributions in meteor trails have been carried out. The two-frequency method now discussed is said to be suitable for this purpose. In this method two coherent transmitters operating at frequencies ν and 2ν are employed ($\lambda = 4-10$ m). Since the two components are reflected at different depths in the meteor trail (provided it is dense enough for these reflections to occur), it is possible to determine the corresponding path difference in the trail and hence deduce the electron density distribution. In practice, the delay of the signal at 2ν is measured relative to the signal at ν . The theory of the method is developed and the formulae for the trail parameters are derived for exponential, Gaussian and linear distributions.

Card 1/2

L 26468-65 EWT(1)/EWT(m)/EWA(d)/EWG(v)/EEG(t)/EEG-4 Pa-5/Pae-2 JD/CW
 S/0058/64/000/011/H063/H063
 ACCESSION NR: AR5004878

SOURCE: Ref. zh. Fizika, 11Zh391

AUTHORS: Sidorov, V. V.; Fakhrutdinova, A. N.; Pokrovskiy, G. B.

TITLE: Fluctuations of the amplitude of meteoric radio echoes

CITED SOURCE: Sb. Meteorn. rasprostr. radiovoln. No. 1, Kazan', Kazansk. un-t, 1963, 80-100

TOPIC TAGS: meteoric radio echo, meteor observation, signal amplitude fluctuation

TRANSLATION: The experimental characteristics of the amplitude fluctuations of meteoric radio echoes, such as the distribution of the amplitude, the depth of fading, the change in the average amplitude of the echo with time, the distribution of the fluctuation period, and the time variations of the periods of fluctuations over the ensemble and their wavelength dependence, are analyzed. It is concluded that the general distribution of the amplitudes of all meteor reflections can be approximately described by a logarithmic normal law. From the fluctuations

Card 1/2

L 26468-65

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550510018-5

of the amplitudes the authors estimate the mean square speed of the relative displacement of the reflecting centers. The majority of the previously obtained experimental data agree with the theoretical scheme of Manning (RZhFiz, 1960, No. 8, 21093). An exception is measurement of the mean amplitude of the echo with time, which varies more like $1/t^2$ than like $1/t$.

SUB CODE: AA, EC

ENCL: 00

Card 2/2

L 23294-65 EEO-2/FSF(t)/EWT(1)/ENG(k)/EWG(v)/ENA(d)/EEC-4/EEC(t)/EED-2/ENA(h)
Pm-4/Pn-4/Pe-5/Pf-4/Pj-4/Pk-4/Pl-4/Pz-6/Pac-4/Pae-2/Peb JHB/GW/WR
ACCESSION NR: AR5001322 S/0269/64/000/010/0051/0052 82
B

SOURCE: Ref. zh. Astronomiya. Otdel'nyy vypusk, Abs. 10.51.349

AUTHOR: Sidorov, V. V.; Andrianov, N. S.

TITLE: Doppler phenomenon in meteor reflections and prevention of multipath propagation

CITED SOURCE: Sb. Meteorn. rasprostr. radiovoln, no. 1. Kazan', Kazansk. un-t, 1963, 179-187

TOPIC TAGS: Doppler effect, meteor reflection, meteor radar echo, meteor trail, radar astronomy

TRANSLATION: This paper discusses the effects arising at the time of the reflection of radio waves from a meteor trail: the Doppler shift of frequency when the meteor approaches the reflection point and rapid fluctuations of amplitude for some time after the trail has been formed. The authors took advantage of the fact that the instantaneous frequencies of the fluctuations change symmetrically with time relative to the flight time of the meteor near the point of mirror reflection. The results of an investigation of the diffraction patterns and the distribution of the amplitudes of the meteor radar echoes are used to compute the distribution

L 31058-65 EWT(d)/EWT(1)/EO(K)-2/EWO(v)/EEO-1/EWA(h) Pa-4/Pa-5/Pa-5/Pa-2/
Pg-4/Pab/Pt-10/P1-4/P1-4 HB/GW/WS 8/0058/64/000/011/R064/R064
ACCESSION NR: AR5004887

SOURCE: Ref. zh. Fizika, Abs. 11Zh400

AUTHORS: Sidorov, V. V.

TITLE: Diversity-difference method of combatting multiple-path propagation in meteoric communication

CITED SOURCE: Sb. Meteor. rasprostr. radiovoln. No. 1, Kazan', Kazansk. un-t, 1963, 188-198

TOPIC TAGS: meteor observation, meteoric radio scatter, multiple path propagation, Doppler shift

TRANSLATION: It is shown that the Doppler shifting of the reflected-signal components by turbulent displacement of the reflection centers cause the amplitude-time characteristics of meteoric radio echoes, registered at two diverse points, to differ. The larger the angular dimensions of the reflecting regions, the greater the difference. The possibility is pointed out of using this difference

Card 1/2

L 25881-66 EWT(1)/EWA(d) GW

ACC NR: AR6005265

SOURCE CODE: UR/0058/65/000/009/H052/H052

AUTHOR: Sidorov, V. V.

TITLE: Coherent-pulse "sector" radio measurement of drifts of meteor trails

SOURCE: Ref. zh. Fizika, Abs. 9Zh369

REF SOURCE: Sb. Meteorn. rasprostr. radiovoln. No. 2. Kazan', Kazansk. un-t, 1964, 37-52

TOPIC TAGS: meteor trail, meteor tracking, Doppler tracking

ABSTRACT: The pulse-Doppler section of the meteor station KGU-M2 is described. The "sector" method of recording makes it possible to measure Doppler frequency shifts by determining the speed of rotation of the phase-meter measuring vector relative to the reference signal. This increases by a factor of almost two the number of meteor reflections suitable for the study of drifts. The influence of diffraction and polarization phenomena on the measurement accuracy is considered. [Translation of abstract]

SUB CODE: 03, 09

Cord 1/1

L 46880-66 ENT(1)/FDC GW

SOURCE CODE: UR/0269/66/000/001/0046/0046

ACC NR: AR6016287

AUTHORS: Sidorov, V. V.; Andrianov, N. S.; Mikhaylov, B. K.; Pokrovskiy, G. B.; Smolyakov, B. P. 57
B

TITLE: Combined meteor station KGU-M2 ✓

SOURCE: Ref. zh. Astronomiya, Abs. 1.51.374

REF SOURCE: Sb. Meteorn. rasprostr. radiovoln. No. 2. Kazan', Kazansk. un-t, 1964, 3-19

TOPIC TAGS: meteor observation, meteor tracking, radio echo, upper atmosphere

ABSTRACT: A general discussion of the combined meteor station KGU-M2 developed at the Radio Astronomical Problems Laboratory KGU (Problemnaya radioastronomicheskaya laboratoriya KGU) is presented. The station is intended for studying the properties of the upper atmosphere by radio reflections from meteor tracks, the physics of meteoric ionization, and some problems of meteor astronomy. The main consideration is given to a description and analysis of noise prevention and station operation synchronization devices. Recommendations for its further improvement are given.
Resume [Translation of abstract]

SUB CODE: 03

UDC: 523.164.8

Card 1/1

L 53796-65 EWT(d)/EWT(1)/EWG(v)/EWA(d)/EEC-4/EEC(t)/EWA(R) Pn-4/Pz-6/Pe-5/1/3
Pg-4/Pae-2/Pe-2/Pi-4/P1-4 JHB/GW UR/0141/65/008/002/0234/0234
ACCESSION NR: AP5014500 523.164.85 53/1/3

AUTHOR: Sidorov, V. V.; Pavlov, A. F.; Fakhrutdinov, R. Yu.

TITLE: The use of a phase technique in studies of polarization phenomena associated with radio wave reflection from meteor trails

SOURCE: IVUZ. Radiofizika, v. 8, no. 2, 1965, 234-243 12

TOPIC TAGS: radio wave reflection, meteor trail, polarization phenomenon, circular polarization antenna

ABSTRACT: Polarization phenomena associated with radio wave reflections from meteor trails are studied by comparing the signal phases in a weakly directional circularly polarized antenna using a direct phase method. This technique makes it possible to separate polarization phenomena from diffraction and wind effects and to observe polarization phase shifting in radio wave reflections of all types regardless of duration. A method of indicating polarization phenomena in observations of meteor trail drifts is proposed; it is noted that the existing theory of polarization phenomena in saturated trails, based on the

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ACCESSION NR: AP5014500

assumption of a "metallic" trail model, does not fully explain the polarization phenomena observed in regions of transition to denser trails. It is concluded that if the Earth's magnetic field is responsible for the anisotropy observed in the trails, which produces prolonged reflections, then the trail structure should be less saturated than that encountered in the case of ambipolar diffusion. [JR]
Orig. art. has: 8 figures.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet (Kazan State University)

SUBMITTED: 06Jul63

ENCL: 00

SUB CODE: AA, EC

NO REF SOV: 004

OTHER: 007

ATD PRESS: 4023

Card 2/2

ACC NR: AR6016289 SOURCE CODE: UR/0269/66/000/001/0046/0346

AUTHORS: Sidorov, V. V.; Andrianov, N. S.; Kurganov, R. A.

TITLE: Continuous emission apparatus for measuring the wind velocity profile at meteor altitudes

SOURCE: Ref. zh. Astronomiya, Abs. 1.51.378

REF SOURCE: Sb. Meteorn. rasprostr. radiovoln. No. 2. Kazan', Kazansk, un-t, 1964, 59-70

TOPIC TAGS: meteor observation, meteor radiant, meteor trail, wind velocity

ABSTRACT: A radio device was developed which uses continuous emission for measuring the wind velocity profile in the meteor region of the atmosphere according to shifts of several portions of the meteor track spaced in altitude. The installation comprises the meteor station KGU-M2, operates together with its pulsed part, and at the same time can be used for measuring the velocities and radiants of meteors. The design equations are presented. The problem of determining t_0 is discussed. Abstract
[Translation of abstract]

SUB CODE: 03

UDC: 523.164.8

Card 1/1

ACC NR: AP7006176

SOURCE CODE: UR/0362/67/003/001/0003/0015

AUTHOR: Zadorina, F. K.; Pokrovskiy, G. B.; Sidorov, V. V.; Teptin, G. M.; Fakhrutdinova, A. M.

ORG: Kazan' State University (Kazanskiy gosudarstvennyy universitet)

TITLE: Atmospheric motions at altitudes of 80--100 km as determined by radio observations of meteors in Kazan'

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 3, no. 1, 1967, 3-15

TOPIC TAGS: ~~atmosphere~~, atmospheric disturbance, atmospheric circulation, wind velocity, radar observation, meteor observation

ABSTRACT: Data on the yearly cycle of wind velocity variations at altitudes of 80--100 km obtained from radar observations of meteors are presented. Harmonic analysis of atmospheric motion was made considering the statistical weights of mean hourly velocity values. It was concluded that in 1964 the total atmospheric circulation intensity was lower than during previous years, although basic features relevant to directional changes in air motion remained the same. During winter months, an increase in turbulence

Card 1/2

UDC: 551.55:551.510.535.4

ACC NR: AP7006176

intensity occurred simultaneously with an increase in the amplitude of diurnal turbulence variations. The characteristic horizontal extent of large-scale turbulences was found to be about 20 km as compared with 100 to 200 km reported earlier by other researchers. Orig. art. has: 8 figures, 2 tables and 1 formula. [GS]

SUB CODE: 04.03/SUBM DATE: 16May66/ ORIG REF: 007/ OTH REF: 004/
ATD PRESS: 5116

Card 2/2

L 47330-65 EWP(1)/EWG(v)/EWA(d)/EEC-4/EEC(t) Pe-5/Pae-2 GW

UR/0286/65/000/007/0042/0042

ACCESSION NR: AP5010870

AUTHORS: Fakhrutdinov, R. Yu.; Sidorov, V. V.

23
B

TITLE: A method for measuring the parameters of meteor trains. Class 21, No. 169591 _{qm}

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 42

TOPIC TAGS: meteor study

ABSTRACT: This Author Certificate presents a method for measuring the parameters of meteor trains using two-frequency coherent probing. In order to broaden the range of measurements on over-dense trains of meteors, the measurements of the initial radius, linear electron density, and coefficient of atmospheric diffusion at the image point are made on the basis of phase relationship for four arbitrary moments of time (see Fig. 1 on the Enclosure). Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 22Feb64

ENCL: 01

SUB CODE: AA, EC

NO REF SOV: 000

OTHER: 000

Card 1/2

L 47330-65

ACCESSION NR: AP5010870

ENCLOSURE: 01

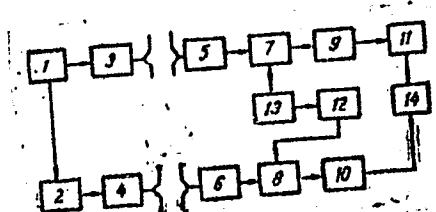


Fig. 1. 1- generator (master); 2- frequency multiplier; 3- amplifier of power by 2; 4- amplifier of power by 2; 5 and 6- high frequency amplifier; 7 and 8- mixers; 9 and 10- intermediate frequency amplifiers; 11 and 12- frequency multipliers; 13- heterodyne; 14- phase meter

TP
Card 2/2

SIDOROV, V.V., assistant

Regularities of arterial vascularization of the liver in
mammals. Uch. zap. Stavr. gos. med. inst. 12:130-131 '63.
(MIRA 17:9)

1. Kafedra normal'noy anatomii (zav. prof. A.G. Korotkov)
Stavropol'skogo gosudarstvennogo meditsinskogo instituta.

MELAMED, S.M., inzh.; SIDOROV, V.V., inzh.

Machine for casting ventilation "blocks." Mekh. stroi. 19
no.4:23-24 Ap '62. (MIRA 15:9)
(Precast concrete) (Ventilation--Equipment and supplies)

ZHITOMIRSKIY, V.K. [translator]; KOLTOVYY, B.I. [translator]; UZHIK, G.V.,
prof., red.; SIDOROV, V.Ya., red.; BELFVA, M.A., tekhn. red.

[High temperatures in aircraft structures; articles translated from
the English] Problemy vysokikh temperatur v aviatsionnykh konstruktsi-
iakh; sbornik statei. Moskva, Izd-vo inostr. lit-ry, 1961. 595 p.
(MIRA 14:12)

(High temperatures) (Thermal stresses) (Airplanes)

SIDOROV, V.Ya., inzhener.

Theoretical principles and experimental data on the steam-air
heating of hotbeds. Izv.TSMA no.2:111-120 '57. (MLFA 1:9)
(Hotbeds)

TALYZIN, F.F.; PCHULKINA, A.A.; SIDOROV, V.Ye.

Medicinal properties of concentrated liquid and dried "Antigiurza"
serum. Vop.kraev.,ob. i eksp.paraz. i med.zool. 9:223-225 '55.

(MLRA 10:1)

1. Iz otdela parazitologii (zav. - akad. Ye.N.Pavlovskiy) Instituta
epidemiologii i mikrobiologii imeni N.F.Gamaleya (dir. - deyatel'-
nyy chlen Akademii meditsinskikh nauk SSSR prof. G.V.Vygodchikov)
Akademii meditsinskikh nauk SSSR.

(SERUM) (SERPENTS)

SIDOROV, V.Ye.; SAF'YANOVA, V.M.

Modification of For and Berlez' liquid for coating arthropods. Med.
paraz. i paraz.bol.supplement to no.1:58 '57. (MIRA 11:1)

1. Iz Instituta epidemiologii i mikrobiologii imeni Genslei AMN SSSR.
(ARTHIPODA--COLLECTION AND PRESERVATION)

SIDOROV, V. E.

"Paths for Circulation of Causative Agents in Argasid Ticks."

Tenth Conference on Parasitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

Institute of Epidemiology and Microbiology, USSR Academy of Sciences
(Moscow)

FLINT, V.Ye.; ZEMSKAYA, A.A.; SIDOROV, V.Ye.

Role of ecological bird groups in the feeding of the tick
Ixodes persulcatus. Zool.zhur. 38 no.3:476-480 Apr '59.
(MIRA 12:4)

1. Department of Infections of Natural Nidality, Institute of
Epidemiology and Microbiology, Academy of Medical Sciences of
the U.S.S.R. (Moscow).

(Sikhote-Alin' Range--Ticks as carriers of disease)
(Parasites--Birds)

S/016/60/000/06/23/051

AUTHOR: Sidorov, V.Ye.

TITLE: The Body Cavity of Argas Ticks as the Habitat of Spirochetes and Brucella

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1960, No. 6, pp. 91 - 97

TEXT: A study was made of Argas ticks, their defense mechanism and interaction with invading causative agents of various diseases. The main form of immunity in the *Ornithodoros lahorensis*, *Ornithodoros papillipes* and *Argas persicus* ticks was the phagocytic activity of the tissue cells of their internal environment, and especially the phagocytic powers of the hemolymph. Agglutinins were detected in *Argas persicus* ticks capable of agglutinating a vaccinal 19-BA strain of *Brucellus abortus*. This mechanism was usually effective if the causative agents, such as spirochetes or *Brucella*, managed to overcome the barriers imposed to entry into the tick's intestine by: the pH of the intestinal contents, digestive enzymes, bacteriolysins, temperature differences or the mechanical barrier of the intestinal wall. An incomplete form of phagocytosis of *Brucella* by the tick's amebocytes was noted, whereby the *Brucella* were transformed into amebocytic

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S/016/60/000/06/23/051

The Body Cavity of Argas Ticks as the Habitat of Spirochetes and Brucella

endosymbionts. Spirochetes were subjected to phagocytosis in the tick's body cavity. Since Ornithodoros papillipes is a natural reservoir and vector of Spirochetes borrelia sogdianum, the author assumes that, in this case too, phagocytosis is of an incomplete nature. The spirochetes change into an aviscual form and become intracellular symbionts. This tends to confirm the phenomenon of transovarial transmission of the Borrelia to the next generation reproduced by the infected tick. There are 3 photos, 2 diagrams and 7 Soviet references. ✓

ASSOCIATION: Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR
(Institute of Epidemiology and Microbiology imeni Gamaleya of
the AMN, USSR)

SUBMITTED: June 22, 1959

Card 2/2

SIDOROV, V.Ye.

Parenteral introduction of foreign substances in the hemolymph of ticks. Zool. zhur. 39 no.5:768-769 My '60. (MIRA 13:10)

1. Department of Infections of Natural Nidality, Institute of Epidemiology and Microbiology, U.S.S.R. Academy of Medical Sciences, Moscow.

(Ticks as laboratory animals) (Phagocytosis)

SIDOROV, V.Ye.

Intestines of argasid ticks as a habitat of *Borrelia* (*Borrelia*
sogdianum). Zool. zhur. 39 no.9:1324-1327 S '60. (MIRA 13:9)

1. Department of Infections of Natural Nidality, Institute of
Epidemiology and Microbiology, U.S.S.R. Academy of Medical Sciences,
Moscow.

(Ticks as carriers of disease)

(*Borrelia*)

SIDOROV, V.Ye.; GUBINA, Ye.A.

Preservation of vaccinal strains of *Brucella abortus* 19-BA
in ticks *Ornithodoros lahorensis* Neumann. Zhur. mikrobiol.,
dpid. i immun. 33 no.7:130-133 J1 '62. (MIRA 17:1)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei
AMN SSSR.

SEVOROVA, L.G.; SIDOROV, V.Ye.

A method for rearing gamasid mites. Zool. zhur. 41 no.9:
1421-1422 S '62. (MIRA 15:11)

1. Department of Infections of Natural Nidality, Institute of
Epidemiology and Microbiology, Academy of Medical Sciences of
the U.S.S.R., Moscow.

(Mites on laboratory animals)

PAVLOVSKIY, Ye.N., akademik; TALYZIN, F.F.; VAL'TSEVA, I.A.;
PCHELKINA, A.A.; SIDOROV, V.Ye.

Durability of antidotal properties of liquid and dried "antigiurza"
serum. Dokl. AN SSSR 142 no.6:1428-1431 F '62.

(MIRA 15:2)

1. Pervyy Moskovskiy meditsinskiy institut im. I.M.Sechenova,
Zoologicheskiy institut AN SSSR i Institut epidemiologii i
mikrobiologii im. N.F.Gamaleya AMN SSSR.

(VENOM)

(SERUM)

LEBEDEVSKAYA, I.N.; PIDGULOV, V. Ye.; KOSICHENKO, A.A.

Is *Rickettsia sibirica* influenced by the host? Infection in
mammals? Med. parazit. i parazit. bol. 35 no. 2:174-181
Br-Ap '64 (MIRA 18:1)

1. Otdel infektsiy s prirodnay oshchepovostiyo (zav.- prof.
P.A. Petrishenova) Instituta epidemiologii i mikrobiologii
Imeni N.F. Gerasimovi (direktor - prof. P.A. Vershilova).

SIDOROV, V.Ye.; GROKHCVSKAYA, I.M.

Effect of X rays on the sexually mature tick *Hyalomma asiaticum*.

Report No. 1. Med. paraz. i paraz. bol. 33 no.5:560-563 S-O '64.

(MIRA 18:4)

1. Otdel infektsiy s prirodnoy ochagovost'yu Instituta epidemiologii
i mikrobiologii imeni Gamalei AMN SSSR.

ACC NR: AP602189

SOURCE CODE: UR/0358/66/035/003/0299/0304

AUTHOR: Grokhovskaya, I. M.; Ignatovich, V. F.; Sidorov, V. Ye.

ORG: Institute of Epidemiology and Microbiology, im. N. F. Gamalei, AMN SSSR
(Institut epidemiologii i mikrobiologii AMN SSSR)

TITLE: Susceptibility of Ixoides ticks to Rickettsia prowazeki

SOURCE: Meditsinskaya parazitologiya i parazitarnyye bolezni, v. 35, no. 3, 1966,
299-304

TOPIC TAGS: human disease, animal disease, disease vector, rickettsia, ticks,
Rickettsia prowazeki, experimental infection

ABSTRACT:

Ticks were infected with *Rickettsia prowazeki* by injection or by feeding on infected guinea pigs. Some tick species were more susceptible than others. *Rickettsia* remained in the bodies of ticks infected during feeding for 15 days. *Rickettsia* were found up to 116 days later in ticks infected parenterally, showing that the tick's body provided a favorable environment for growth of *Rickettsia*. Ovarian transmission to progeny did not occur. Infected ticks did not infect healthy guinea pigs by feeding on them, but the guinea pigs could be infected by vaccination with ground tick bodies. Orig. art. has: 3 tables and 1 figure.

SUB CODE: 06/ SUBM DATE: 10Aug65/ ORIG REF: 004/ OTH REF: 003/ [W.A. 50; CBE No. 10]
UDC: 576.895.42:576.851.71+591.67-542:576.851.71
Card 1/1

ACC NO: AP6020692

SOURCE CODE: UR/0016/66/000/006/0133/0138

AUTHOR: Grokhovskaya, I. M.; Sidorov, V. Ye.

ORG: Institute of Epidemiology and Microbiology, Academy of Medical Sciences, SSSR, Moscow (Institut epidemiologii i mikrobiologii im. Gamaleya AMN SSSR)

TITLE: Mutual adaptation of causative agents and vectors

SOURCE: Zh mikrobiol, epidemiol i immunobiol, no. 6, 1966, 133-138

TOPIC TAGS: animal disease, tick borne typhus, adaptation, rickettsia, medical experiment, tick, vector, experimental infection, pathogen, rickettsial disease, animal parasite

ABSTRACT:

Ornithodoros lahorensis ticks were infected with the tick-borne typhus pathogen *Demacetroxenus sibiricus* by feeding on infected guinea pigs and by introducing the rickettsia directly into the body cavity. The ticks infected by feeding retained the pathogen for 420 days, and the parenterally infected ticks for 300 days (to the end of the observation period). The infected ticks retained the rickettsia through the subsequent stages of metamorphosis and transmitted them by ovum to their progeny.

Card 1/2

UDC: 616.981.711-036.21-022.39:576.895.42+576.895.45.095.38

ACC NR: AP6020692

Parentally infected ticks transmitted the rickettsia to uninfected laboratory hosts (guinea pigs and rabbits) by feeding. The rickettsia were seen in the amebocytes of tick hemolymph by the 4th to 10th day after parenteral infection. *Dermacentor sibiricus* can be transmitted directly from infected to uninfected ticks by parenteral injection of tracheal matter from the infected ticks. [WA-50; CBE No. 11]

SUB CODE: 06/ SUBM DATE: 22Jun65/ ORIG REF: 007/ OTH REF: 001/

Card 2/2

SIDOROV, Ya.P.

Electrical conductivity of cotton and staple rayon fibers and its dependence on the relative humidity of the air. Izv.vys.ucheb.zav.; tekhn.tekhn.prom. no.2:17-22 '60. (MIRA 13:11)

1. Ivanovskiy tekstil'nyy institut.
(Textile fibers--Electric properties)

IVANCHENKO, I.A., laureat Stalinskoy premii; ZABRODIN, P.A., laureat Stalinskoy premii; SIDOROV, Ye.A., laureat Stalinskoy premii; ~~KELEVICH~~ KELEVICH, P.M., inzhener; redaktor; VERINA, G.P., tekhnicheskiy redaktor.

[Industrial methods and mechanisation in reinforced concrete bridge construction] Industrializatsiia i mekhanizatsiia postroiki shele-zobetonnykh mostov. Moskva, Gos.transp.shel-dor.isd-vq 1952. 185 p. [Microfilm] (MLRA 7:10)

(Bridges, Concrete)

MIROSHNICHENKO, Ya.S., inzh.; SIDOROV, Ye.A., inzh.

Structural characteristics of semiconductor generators used for feeding
automatic locomotive stops. Trudy RIIZHT no.26:84-89 '58.
(MIRA 12:3)

(Electric generators)
(Railroads--Automatic train control)

SIDOROV, Ye.A.; SECHIK, V.K.

Automation of some operations in testing electrical machines.
Sbor. st. RIIZHT no.45:77-81 '64. (MIRA 19:1)

SIDOROV, Ye.G.

Parasites of fishes in the Irgis-Turgay basin waters. Sbor.rab.po
ikht. i gidrobiol. no.1:232-251 '56. (MLRA 10:4)
(Turgay Gates--Parasites) (Parasites--Fishes)

SIDOROV, Ye.G.

Parasites of Fishes in Lake Kurgal'dzhin. Trudy Inst. zool AN
Kazakh. SSR 7:131-140 '57. (MLBA 10:9)
(Kurgal'dzhin, Lake--Parasites--Fishes)

USSR / Zooparasitology. General Problems.

G

Abs Jour: Ref Zhur-Biol., No 6, 1959, 24177.

Author : Sidorov, Ye. G.

Inst : ~~Institute of Zoology~~, AS KazakhSSR.

Title : The Parasites of Fish of the Nura River and
Nura Reservoir.

Orig Pub: Tr. In-ta zool. AN KazSSR, 1958, 9, 32-41.

Abstract: Faunistic description of 42 species of parasites
from 261 fish specimens is given. It is stated
as a preliminary conclusion that ichthyoparasito-
fauna of the reservoir is already formed.

Card 1/1

• SIDOROV, Ye.G.

Parasite fauna of fishes in reservoirs of central Kazakhstan.
Trudy sov. ikht. k. no. 9: 134-137 '59. (MIRA 13:5)

1. Institut zoologii AN Kazakhskoy SSR.

(Mura Reservoir--Parasites)

(Dzheskasgan Reservoir--Parasites) (Parasites--Fishes)

SIDOROV, Ye.G.

Distribution of metacercariae of *Opisthorchis felinus* in
fishes of the Irtysh River within the boundaries of
Pavlodar Province. Trudy Inst.zool.AN Kazakh.SSR 12:
192-194 '60. (MIRA 13:7)
(Irtysh River--Liver fluke)
(Parasites--Fishes)

SIDOROV, Ye.G.

Parasites of fishes in waters of central Kazakhstan. Trudy Inst.
zool. AN Kazakh. SS: 14:88-108 '60. (MIRA 13:12)
(Kazakhstan--Parasites) (Parasites--Fishes)

SIDOROV, Ye.G.

Distribution of metacercaria of *Opisthorchis feliceus* among
fish of Zaisan Lake and in the upper course of Irtysh. Med.
Paraz.i paraz.bol. 29 no.3:346-347 '60. (MIRA 13:12)
(IRTYSH VALLEY—LIVER FLUKES) (FISHES—DISEASES AND PESTS)

SIDOROV, Ye.G.

Method for determining the infectivity of fish with metacercaria
of *Opisthorchis felinus* (Rivolta, 1884). Med.paras.i paras.
bol. 29 no.2:177-179 '60. (MIRA 13:12)
(LIVER FLUKES) (FISHES—DISEASES AND PESTS)

SIDOROV, Ye.G.

A new causative agent of opisthorchosis *Opisthorchis felinus*
arvicola subsp. nov. Trudy Inst. zool. AN Kazakh. SSR 22:144-147
'64. (MIRA 17:12)

SIDOROV, Ye.G.

Parasitological evaluation of Mysidae, introduced in Lake Balkhash.
Trudy Astr. zap. no.9:201-207 '64.

(MIRA 18:10)

SIDOROV, Ye.G.

Natural foci of opisthorchosis. Izv. AN Kazakh. SSR. Ser. biol.
nauk 3 no.3:66-73 My-Je '65. (MIRA 18:9)

ALEKSEYEV, G.Ya.; ISAYENKO, P.S.; NOVITCHENKO, K.M.; FIZDEL', I.A.;
SIDOROV, Ye. N., red.; MORSKOY, K.L., red. izd-va.; LAGUTINA, I.M., tekhn. red.

[On Moscow construction sites; practices of the Moscow State
Trust "Stroitel".] Na stroikakh Moskvy; iz opyta raboty Moskovskogo
Gosudarstvennogo ordena Trudovogo Krasnogo Znameni Tresta "Stroitel".
Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt., i stroit. materialam,
1958. 89 p. (MIRA 11:12)

(Moscow--Construction industry)

~~SIDOROV, Ye.~~ ^{N.}

~~Apartment houses should be managed by one organization~~ ~~Shil.-kom.~~
khodz. 10 no.6:10 '60. (MIRA 13:7)

1. Predsedatel' ispolkoma gorodskogo Soveta deputatov trudyashchikhaya, g.Zhigulevsk, Kuybyshevskaya oblast'.
(Zhigulevsk--Apartment houses--Management)

SIDOROV, Ye.P.

Effect of mixing intensity on the strength of gas silicates. Izv.
AN Turk.SSR.Ser.fiz.-tekh., khim.i geol.nauk no.3:95-97 '61.
(MIRA 14:7)

1. Institut antiseysmicheskogo stroitel'stva AN Turkmenskoy SSR.
(Lightweight concrete)

SIDOROV, Ye.P.; VINOGRADOV, B.N.

Effect of vibration modification on the phasic composition, structure,
and strength of microsilicate. Izv. AN Turk. SSR. Ser. fiz.-tekh.,
khim. i geol.nauk no.5:61-66 '61. (MIRA 14:11)

1. Institut antiseysmicheskogo stroitel'stva AN Turkmenskoy SSR.
(Silicates) (Vibration)

KUDRYASHEV, I.T., kand.techn.nauk [deceased]; SIDOROV, Ye.P., inzh.

High-strength air-entrained silicate. Bet. i zhel.-bet.
no.5:219-220 My '61. (MIRA 14:6)

(Silicates)
(Building materials)

VINOGRADOV, B.N.; SIDOROV, Ye.P.

Effect of macrocrystalline calcium oxide on the strength and structure of gas silicates. Izv. AN Turk. SSR. Ser. fiz.-tekhn. i geol. nauk no.6:88-94 '61. (MIRA 15:3)

1. Institut antiseysmicheskogo stroitel'stva AN Turkmeneskoy SSR.

(Silicates)

SHVARTSZAYD, M.S.; SIDOROV, Ye.P.; VINOGRADOV, B.N.

Interaction of calcium hydroxide and carbonate under autoclave
treatment. Izv.AN Turk.SSR.Ser.fiz.-tekhn., khim.i geol.nauk no.1:
51-56 '62. (MIRA 16:12)

1. Institut antiseysmicheskogo stroitel'stva AN Turkmenskoy SSR.

SHVARTSZAYD, M.S., kand.tekhn.nauk; SIDOROV, Ye.P., inzh.;
VINIGRADOV, B.N., inzh.

Decorative autoclaved silicate concrete with a carbonate
aggregate. Stroi. mat. 8 no.6:12-14 Je '62. (MIRA 15:7)
(Sand-lime products)
(Facades) (Carbonates)

SIDOROV, Ye.P., kand.tekhn.nauk; SOROCHISHIN, A.G., kand.tekhn.nauk

Finishing of stone products with polymeric resins. Stroimaterialy. 9
no.9:39-40 S '63. (MIRA 16:10)

DZHIGIRIS, D.D.; SIDOROV, Ye.P.; VINOGRADOV, B.N.

Effect of the fineness of component materials on the properties
of gas concretes. Izv.AN Turk.SSR.Ser.fiz.-tekhn., khim.i geol.nauk
no.3:63-67 '63. (MIRA 17:3)

1. Institut seysmostoykogo stroitel'stva AN Turkmenskoy SSR.

SHVARTSMAN, M.S., kand. tekhn. nauk; SIDOROV, Ye.P., inzh.; VINOGRADOV,
B.N., inzh.

Reactive capacity of carbonate additions during autoclave
treatment of lime-sand mixtures. Sbor. trud. VNIINSM
no.8:122-133 '63. (MIRA 17:9)

SIDOROV, Ye.P., kand.tokhn.nauk; SOROKHISHIN, A.G., kand.tokhn.nauk

Decorative and protective finishing of building details and
products with a polymer coating. Stroi.mat. 9 no.12:4-6 D
'63. (MIRA 17:3)

L 8903-65 EWT(1)/EWT(m)/EWP(q)/EWP(b) IJP(c)/ESD(gs)/RAEM(e)/AS(mp)-2/ESD(t)/
 RAEM(t)/RAEM(c) JD
 S/0181/64/006/010/2981/2983
 ACCESSION NR: AP4046607

AUTHOR: Kuznetsov, F. A.; Sidorov, Yu. G.; Maranchuk, I. Ye.

TITLE: Quantitative description of transport reactions B

SOURCE: Fizika tverdogo tela, v. 6, no. 10, 1964, 2981-2983

TOPIC TAGS: ¹⁸ single crystal growth, ²⁹ germanium single crystal, vapor grown germanium, chemical transport reaction, germanium disproportionation, germanium iodine system, vapor supersaturation

ABSTRACT: Supersaturation at the critical temperature of beginning crystallization is defined and calculated in the same manner for both the general case of crystal growth from the vapor phase and the case of germanium crystal growth by a heterogeneous-germanium disproportionation reaction. Supersaturation is considered an important factor in determining the morphology and defectiveness of a crystal. In the chemical transport reaction



supersaturation is defined as ΔG or the ratio K_p/Π , where K_p is the
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ACCESSION NR: AP4046607

2

equilibrium constant of the reaction, Π the ratio of partial pressures

$$P_{\text{GeI}_4} / P_{\text{GeI}_2}^2$$

and ΔG the change in isobaric-isothermic chemical potential of the process. A generalized formula is derived for calculating the amount of germanium crystallized in a given volume of a given $\text{GeI}_2 + \text{GeI}_4$ mixture, since in the case of a complex chemical reaction supersaturation cannot be directly correlated with crystallization rate and, therefore, cannot be taken as a measure of deviation from equilibrium. The previously reported discrepancies between the temperatures of crystallization and of the source site are confirmed experimentally. It is concluded that germanium crystallization occurs at a temperature substantially lower than the equilibrium temperature, since equilibrium is not reached at the source site. Orig. art. has: 1 table and 9 formulas.

ASSOCIATION: Institut neorganicheskoy khimii SO AN SSSR (Institute of Inorganic Chemistry, SO AN SSSR); Institut fiziki tverdogo tela i poluprovodnikovoy elektroniki SO AN SSSR (Institute of Solid State

Card 2/3

L 8903-65

ACCESSION NR: AP4046607

Physics and Semiconductor Electronics, SO AN 888R)

SUBMITTED: 24Mar64

ATD PRESS: 3103

ENCL: 00

SUB CODE: GC, 88

NO REF SOV: 001

OTHER: 002

Card 3/3

1 47319-66 EXT (t)/T/EXP(t)/ETI 1 P(4) 51/21/13
ACC NR: AR6025 54 SOURCE CODE: UR/0058/66/000/004/A074/A075

AUTHOR: Maronchuk, I. Ye.; Sidorov, Yu. G.

TITLE: Growth of GaAs crystals in the gas phase

SOURCE: Ref. zh. Fizika, Abs. 4A625

REF SOURCE: Sb. Simpozium. Protsessy sinteza i rosta kristallov i plenok poluprovod-
nik. materialov, 1965. Tezisy dokl. Novosibirsk, 1965, 20

TOPIC TAGS: gallium arsenide, crystal growing, epitaxial growing, dendrite

ABSTRACT: The authors investigated the influence of the composition of the vapor phase on the growth rate and on the delineation of the GaAs crystals grown by the open iodide process. At values $(P_{GaI} + P_{GaI_2})/n_{PAs_n} \geq 1$ and small supersaturations, the (111) face increases with minimum velocity, as a result of which there is formed a smooth mirror-like surface of grown epitaxial layers. An increase of the supersaturation leads to the formation of flexible dendrite ribbons with further developed (111) surface. At values $K = 1$ the relief of the epitaxial layers becomes somewhat more complicated, and thin needle-like crystals appear on the walls of the reactor.
[Translation of abstract]

SUB CODE: 20

Cord 1/1 afz

L 45240-56 ENT(m)/T/END(t)/ETI IJP(e) JD/WW/JG
ACC NR: AR6025744 SOURCE CODE: UR/0058/66/000/004/A071/A071

AUTHOR: Sidorov, Yu. G.

ORG: none

TITLE: Synthesis of solid GaAs-InAs solutions in the gas phase

SOURCE: Ref. zh. Fizika, Abs. 4A596

REF SOURCE: Sb. Simpozium. Protsessy sinteza i rosta kristallov i plenok poluprovodnik. materialov, 1965. Tezisy dokl. Novosibirsk, 1965, 36

TOPIC TAGS: phase composition, gallium solid solution, indium solid solution, solid solution

ABSTRACT: The problem of the composition of the gas phase in equilibrium with the solid phase of variable composition of $\text{Ga}_x\text{In}_{1-x}\text{As}$ in the presence of iodine is discussed. The equilibrium of the system is calculated. Solid solutions are obtained by the open iodide method. It is shown that solid solutions become enrich-

Card 1/2

L 45240-56

ACC NR: AR6025744

ed in Ga when the crystallization temperature rises and that In content increases with a decrease in the crystallization temperature. [Translation of abstract]

[DW]

SUB CODE: 20/

Card 2/2 *LC*

L 02348-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AB6025738

SOURCE CODE: UR/0058/66/000/004/A069/A069

AUTHOR: Stroitelev, S. A.; Marorchuk, I. Ye.; Sidorov, Yu. G.; Avdiyenko, K. I. 50

TITLE: On the relief of epitaxial germanium layers 18

SOURCE: Ref. zh. Fizika, Abs. 4A586 17

REF SOURCE: Sb. Simpozium. Protsessy sinteza i rosta kristallov i plenok poluprovod-
nik. materialov, 1965. Tezisy dokl. Novosibirsk, 1965, 38

TOPIC TAGS: germanium, epitaxial growing, semiconducting film, crystal growth

ABSTRACT: A study was made of the formation of the surface relief of epitaxial Ge layers as a function of the conditions of their growth by the iodide method in an open tube. The growth rate of (111), (100), (110), and other faces, as a function of the supersaturation, does not change uniformly. At the same layer orientation, different values of supersaturation on the surface of the layers correspond to different growth figures, the faces of which agree with the growth forms of the microcrystals produced near the substrates. Layers with plane relief of the (111) surface are obtained in the case when the crystallization conditions of Ge correspond to formation of germanium crystals of octahedral form. In all other cases, the relief of the surface becomes more complicated by formation of sharply-peaked or truncated pyramids. [Translation of abstract]

SUB CODE: 20

Card 1/1 111

L 29889-66 EWT(m)/EWP(t)/ETJ IJP(c) JD
ACC NR: AR6008639 SOURCE CODE: UR/0081/65/000/017/BO45/BO45

AUTHOR: Maronchuk, I. Ye.; Sidorov, Yu. G.

TITLE: Oversaturation in growing germanium layers, using the free iodine method

SOURCE: Ref. zh. Khimiya, Abs. 17B294

REF SOURCE: Sb. Vychisl. sistemy. Vyp. 15. Novosibirsk, 1965, 83-89

TOPIC TAGS: crystal, germanium single crystal, crystal growth

ABSTRACT: The effect of the growth conditions on the perfection of epitaxy Ge layers prepared on melted quartz and on single-crystal Ge is discussed. The equipment used and the method of calculation are described. A method of calculating the real composition of vapor and its derivation from the equilibrium along the crystallization zone is proposed. It was found that a relative oversaturation increases along the crystallization zone at a constant temperature gradient which is based on a sharp change in the degree of transformation in this range of temperatures. The change in supersaturation in various places leads to a variation of dislocation density in the grown layers. In the case of high oversaturation at the end of the crystallization zone a polycrystalline growth of layers takes place. At low oversaturations at the beginning of the crystallization zone on a single-crystal base, "points" are formed which absorb defects during fusing. L. Lenchchuk.

SUB CODE: 20/ SUBM DATE: none
Card 1/1 CC

ACC NR: AR6030483

SOURCE CODE: UR/0275/66/000/006/B007/B007

AUTHOR: Stroitelev, S. A.; Maonchuk, I. Ye.; Sidorov, Yu. G.; Avdiyenko, K. I.

TITLE: Relief of Ge epitaxial layers

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 6846

REF SOURCE: Sb. Simpozium. Protsessy sinteza i rosta kristallov i plenok poluprovodnik. materialov, 1965. Tezisy dokl. Novosibirsk, 1965, 3Kh8 [sic]

TOPIC TAGS: germanium semiconductor, germanium refining, germanium single crystal

ABSTRACT: The shaping of relief of the surface of Ge epitaxial layers depending on their growing conditions by the iodide method in an open pipe was studied. The rate of growth (111), (100), (110), and other facets varies unequally depending on supersaturation. With the same layer orientation, different growth figures, whose faceting corresponds to the growth forms of near-backing microcrystals, correspond to different surface supersaturations. When Ge crystallization conditions correspond to the formation of octahedral forms, flat-relief (111) layers are produced. In all other cases, the surface relief is complicated by formation of acute-vertex or truncated pyramids. [Translation of abstract]

Card 1/1 SUB CODE: 20, 11

UDC: 621.315.592:548.552:546.289.548.28

ACC NR: AR6030480

SOURCE CODE: UR/0275/66/000/006/B012/B012

AUTHOR: Maronchuk, I. Ye.; Sidorov, Yu. G.

TITLE: GaAs-crystal gas-phase growing

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 6B78

RER SOURCE: Sb. Simpozium. Protsessy sinteza i rosta kristallov i plenok poluprovodnik. materialov, 1965. Tezisy dokl. Novosibirsk, 1965, 20

TOPIC TAGS: gallium arsenide, ~~semiconducton~~, single crystal growing, *semiconductor research*

ABSTRACT: The results are reported of an investigation of the effect of vapor phase upon the rate of growth and faceting of GaAs crystals in the open iodide process.

With $\frac{P_{GaJ} + P_{GaI}}{n P_{As_n}} > 1$ and small supersaturations, the (111)-facet grows at a lowest rate which ensures a smooth mirror-like surface of the epitaxial layers grown. At higher supersaturations, flexible dendritic ribbons with a well developed (111)-surface are formed. With $K = 1$, the epitaxial-layer relief becomes more complicated, and thin acicular crystals are formed on the reactor walls. I. M., Yu. S.
[Translation of abstract]

SUB CODE: ~~4-20~~²⁰

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UDC: 621.315.592:548.552:546.19:681

ACC NR: AR6030493

SOURCE CODE: UR/0275/66/000/006/B014/B014

AUTHOR: Sidorov, Yu. G.

TITLE: Synthesizing GaAs--InAs solid solutions in the gas phase

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 6B92

REF SOURCE: Sb. Simpozium. Protsessy sinteza i rosta kristallov i plenok poluprovodnik, materialov, 1965. Tezisy dokl. Novosibirsk, 1965, 42-43

TOPIC TAGS: solid solution, crystallization, semiconductor single crystal

ABSTRACT: The problem of gas-phase composition in equilibrium with a $\text{Ga}_x\text{In}_{1-x}\text{As}$ solid-phase variable composition, in the presence of iodine, is considered. The system equilibrium is calculated. Solid solutions were produced by the open iodide method. It was found that with higher temperatures, the solid solution is Ga-enriched; with lower temperatures, In-content in the solution increases. Yu. S. [Translation of abstract]

SUB CODE: ~~20~~

Card 1/1

UDC: 621.315.592.4:546.19:681:682

24(6), 7(7), 8(2) SOV/105-59-i-16/29
 AUTHORS: Zelikman, G. A., Engineer,
 Levenberg, I. S., Engineer, Lukashova, I. P., Engineer,
 Sidorov, Yu. I., Engineer, Fronk, S. V., Engineer

TITLE: Junction-Type Silicon Diodes (Ploskostnyye kremniyevyye diody)

PERIODICAL: Elektrichestvo, 1959, Nr 1, pp 64-68 (USSR)

ABSTRACT: This investigation concerns the manufacturing process and electric properties of silicon rectifier diodes of the types D 202 to D 205. These are obtained by the method of melting aluminum with the silicon of the n-type. These diodes are obtained from silicon with a specific resistance of 10-30 ohm-centimeters, and show an operating inverse voltage of 100-400 volts and a rectified current of 400 ma. The admissible working temperature of such diodes is + 125°C. These diodes can be used in circuit schemes for rectifying an alternating current with a frequency up to 100 kilocycles. The construction of these diodes is described. It is based on the construction of the germanium diode D-7. Then the volt-ampere characteristics are examined. The principal properties of the diode are expressed by the volt-ampere characteristics (static characteristics) taken at direct

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Junction-Type Silicon Diodes

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current. The static characteristic and the admissible power greatly mark the quality of the diode. But in order to obtain parameters approaching the working method of rectifier diodes, the characteristic is taken at alternating current in a number of cases (dynamic characteristic). The classification of diodes is given. They are divided in 4 groups according to the magnitude of inverse voltage. The diodes shown here may be also connected in series. Finally, the prospects of development of diodes are illustrated. With the use of Si it will become possible in the near future to obtain diodes for inverse voltages of over 1000 volts, rectifier columns for dozens of kilovolts, large diodes for dozens of amperes, and diodes for special purposes with very small return currents and increased limiting frequency. To obtain diodes with high puncture voltage, it might be of advantage to use the stretching method. This method permits to obtain the fields with different conducting capacities of the crystal during the production of the silicon monocrystal. In the development of diodes, attention is directed more and more to the diffusion method. Some preliminary data on the obtaining of p-n-transitions according to the diffusion method are given

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Junction-Type Silicon Diodes

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here. M. I. Iglitsyn, Candidate of Technical Sciences,
discussed the work with the authors. There are 4 figures
and 1 table.

SUBMITTED: May 4, 1956

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SIDOROV, Yu. I.

SOV/5194

PHASE I BOOK EXPLOITATION

Moscow. Aviatsionnyy institut im. Sergo Ordzhonikidze

Primeneniye poluprovodnikovyykh priborov v aviatsionnykh radio-
 tekhnicheskikh ustroystvakh; sbornik statey (Use of Semiconduc-
 tor Devices in Aviation Radio-Engineering Installations; Col-
 lection of Articles) Moscow, Oborongiz, 1960. 100 p. (Series:
 Its: Trudy, vyp. 128) 7,650 copies printed.

Sponsoring Agencies: Ministerstvo vysshego i srednego spetsial'nogo
 obrazovaniya RSFSR; Moskovskiy ordena Lenina aviatsionnyy institut
 imeni Sergo Ordzhonikidze.

Ed. (Title page): I. S. Gonorevskiy, Doctor of Technical Sciences,
 Professor; Managing Ed.: A. S. Zaymovskaya, Engineer; Ed. (In-
 side book): S. I. Dumshteyn, Engineer; Tech. Ed.: L. A. Garmukhina.

PURPOSE: This collection of articles is intended for scientific and
 technical personnel concerned with the utilization of semicon-
 ductor devices in radio engineering.

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tion
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